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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,909	09/15/2003	Cheng-Chi Wang	250317-1060	1239
24504	7590	07/08/2005		
THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP 100 GALLERIA PARKWAY, NW STE 1750 ATLANTA, GA 30339-5948			EXAMINER WEISS, HOWARD	
			ART UNIT	PAPER NUMBER
			2814	

DATE MAILED: 07/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/662,909

Applicant(s)

WANG, CHENG-CHI

Examiner

Howard Weiss

Art Unit

2814

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-11, 13 and 14 ~~is/are~~ pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-11, 13 and 14 ~~is/are~~ rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

Attorney's Docket Number: 250317-1060

Filing Date: 9/15/03

Continuing Data: none

Claimed Foreign Priority Date: 9/18/02 (TWX)

Applicant(s): Wang

Examiner: Howard Weiss

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Initially, and with respect to Claims 10 and 14, note that a "product by process" claim is directed to the product per se, no matter how actually made. See *In re Thorpe et al.*, 227 USPQ 964 (CAFC, 1985) and the related case law cited therein which make it clear that it is the final product per se which must be determined in a "product by process" claim, and not the patentability of the process, and that, as here, an old or obvious product produced by a new method is not patentable as a product, whether claimed in "product by process" claims or not. As stated in Thorpe,

even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. *In re Brown*, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972); *In re Pilkington*, 411 F.2d 1345, 1348, 162 USPQ 145, 147 (CCPA 1969); *Buono v. Yankee Maid Dress Corp.*, 77 F.2d 274, 279, 26 USPQ 57, 61 (2d. Cir. 1935).

Note that Applicant has burden of proof in such cases as the above case law makes clear.

3. Claims 9 to 11 are rejected under 35 U.S.C. § 103(a) as obvious over Ota et al. (JP 06-084946) and Licari et al. (U.S. Patent No. 5,485,038).

Ota et al. show most aspects of the instant invention (e.g. Figure 3) including:

- a plurality of first stacked structures on a substrate **1**
- each first stack includes a first conducting layer **3**, an insulation layer **4** and an amorphous silicon (a-Si) layer **5**
- an interlayer **16** between the plurality of stacks
- source/drain electrodes **8/9** on said interlayer and connected to separate portions of said a-Si layer via ohmic contact layers **6S,6D**
- a passivation layer **10** on said a-Si layer and said source/drain electrodes
- a transparent electrode **220** (Figure 1) on said passivation layer and connected to said drain electrode

Tsujimura et al. do not show the interlayer between the stacks made of photo-imagable material. Licari et al. teach to use photo-imagable material for interlayers because these materials are less expensive and more efficient to use than conventional interlayer material (Column 3 Lines 12 to 21). It would have been obvious to a person of ordinary skill in the art at the time of invention to use photo-imagable material for interlayers as taught by Licari et al. in the device of Tsujimura et al. because these materials are less expensive and more efficient to use than conventional interlayer material.

As to the grounds of rejection under "product by process", how the plurality of stacks are formed, either by a one mask process or another process, pertains to intermediate process steps and does not affect the final device structure. See MPEP § 2113 which discusses the handling of "product by process" claims.

4. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ota et al. and Licari et al., as applied to Claim 9 above, and further in view of Tsujimura et al. (U.S. Patent Application No. 2002/0190253).

Ota et al. and Licari et al. show most aspects of the instant invention (Paragraph 7) except the second stack structures. Tsujimura et al. teach (e.g. Figure 3) to a second stack with a conductive layer to control the capacitance of the substrate (Paragraph [0079]). It would have been obvious to a person of ordinary skill in the art at the time of invention to provide a second stack structure as taught by Tsujimura et al. in the device of Ota et al. and Licari et al. to a second stack with a conductive layer to control the capacitance of the substrate.

Response to Arguments

5. Applicant's arguments with respect to Claims 9 to 11, 13 and 14 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

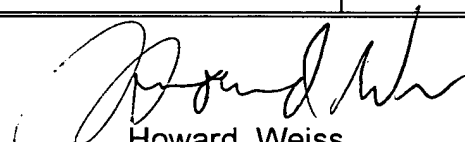
6. Papers related to this application may be submitted directly to Art Unit 2814 by facsimile transmission. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (15 November 1989). The Art Unit 2814 Fax Center number is **(703) 872-9306**. The Art Unit 2814 Fax Center is to be used only for papers related to Art Unit 2814 applications.
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Howard Weiss at **(571) 272-1720** and between the hours of 7:00 AM to 3:00 PM (Eastern Standard Time) Monday through Friday or by e-mail via **Howard.Weiss@uspto.gov**. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy, can be reached on **(571) 272-1705**.

Art Unit: 2814

8. The following list is the Examiner's field of search for the present Office Action:

Field of Search	Date
U.S. Class / Subclass(es): 257/59, 72; 349/43	thru 7/6/05
Other Documentation: none	
Electronic Database(s): EAST	thru 7/6/05

HW/hw
6 July 2005


Howard Weiss
Primary Examiner
Art Unit 2814